Work Order 3 August-08-13 8:57:			*105					Page 1		
Item ID: D2 Revision ID: Item Name: Cle	012-107		Accept	*N900	040	100	<b>)*</b> s	Setup Star	I VI	S1* S2*
•	6/13 Start Qty: 20.	- · · ·	·	Cust Item Customer:						
	rocess Plan: ML5		Tooling: SPC (Y/N):		Pate:		F	Run Star Stop		R1* R2*
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr									
D2012-107	Rev C									
*100 *100* Waterjet FLOW CNC Waterjet 304.063	Dwg R Prog R	s per Dwg D2012-107 ev: er if necessary	0.00				20	_0		Jm13-09-20
*110 *110* QC Quality Control	QC2- Inspect parts  Memo	off machine FAI/FAIB	0.00				26	<u>0</u>		<u>Jm309-2</u>
120 *120* QC	QC8- Inspect parts  Memo	- second check	0.00 DAS 9-89				20			

Quality Control

NCR:	Yes	/	No

DQA:

Date:

NCR: Y	es /	/ No				WORK ORDER NON-C	CONFOR	MANCE / UP	DATE	QA Closed:	Date	· 2:
Work Orde	r.					DISPOSITION		· · · · · · · · · · · · · · · · · · ·	AGAINST DE	PARTMENT	/PROCESS	
Part No.			Rework Scrap Use-as-is	Thor	Skid-tube Crosstube  Machining Small Fab  Thermoforming Finishing			Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other			
NCR N	lo					Work Order Update						
Root					Descri	ption of work order update	Initial	. Ac	ction	Sign &	,	
Cause		Date	Step	Qty		or Non-conformance	Chief Eng	Desc	cription	Date	Verification	QC Inspector
oc/Data										·		·
quip/Tooling												
perator	_							-	·			
/laterial	_							1				
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ther	ᆜ.											
rocess												
upplier										,		
raining	_						ľ					
napproved		i							<del></del>			
				·			AULT CATI	GORY				· .
Landir					_	General			_	٦.	<del> </del>	7
,		ending				Bend	Grain		<u>_</u>	Ovalized	<u> </u> _	Pressure/Forced
1	$\dashv^{c}$	entre No	t Concer	itric to	o/s	BOM/Route	Hardw		<u>.                                      </u>	Over/Under	<u> </u>	Temperature/Cure
ļ	$\Box$ c	racks				Broken/Damaged	Inspec	tion Incomplete		Part Incorre	ct _	Weld
	c	crushed/C	Crimped			Burrs	Instruc	tions Incomplete	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
	c	uffs		X.,		Contamination	Maint	enance		Part Moved		
	Н	leat Trea	t			Countersink	Mislab	eled	·	Positioned V	Vrong	
	i lr	nspection	Strip in	Tube		Cut Too Short	Misrea	ıd		Power Loss/	Surge	Other
·	R	lipples in	Bend	*		Drill Holes	Offset					
	T	orque W	aves in E	xtrusio	n $\lceil$	Drawing	Out of	Calibration				
ľ	Т	urning Se	equence			Finish	Out of	Sequence				
	Πv	Vave/Twi	ist in Tub	e		Folio	Outsid	e Dimensions				

150

Identify as per dwg & Stock Location: UA 004 0.00

\*150\*

Packaging

Memo

0.00

20 13/2/26

32 32

										DQA:	Date	:
NCR: Y	'es / No				WORK ORDER NON-C	100	NFORM	MANCE / UPDATE		QA Closed:	Date	:
Work Orde	νė.				DISPOSITION			AGAINST	DE	PARTMENT		
WOIK Olde					Rework			Skid-tube Crosstube		]	Water Jet	Engineering
Part N	lo				Scrap							Quality
NCR N	lo				Use-as-is Work Order Update							Other
Root				Descri	ption of work order update		nitial	Action		Sign &		
Cause	Date	Step	Qty	,	or Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator											:	
Material												
Setup												
Other												
Process												
Supplier												
Training												
Unapproved												<u> </u>
					F.	AUL	T CATE	GORY				
Landi	ng Gear				General		-	r		,		
	Bending				Bend		Grain			Ovalized		Pressure/Forced
	Centre 1	Not Conce	ntric to	O/S	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks Broken/Damaged			Broken/Damaged		Inspecti	on Incomplete		Part Incorred	<b>}</b>	Weld	
	Crushed	/Crimped		L	Burrs		-	ions Incomplete/Unclear		Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs Contamination			Contamination		Mainte	nance		Part Moved			
	Heat Treat Countersin				Countersink		Mislabeled			Positioned V	Vrong	

Misread

Out of Calibration

Out of Sequence

Outside Dimensions

Offset

Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Work Orde				*105			Page 3	\$		
Item ID: Revision ID:	D2012-10	77		Accept	*N900	<b>04010</b> 0	<b>)*</b> Set	tup Start Stop	*NS1* *NS2*	
Item Name: Start Date: Required Date: Reference:	8/06/13	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*		Cust Item I Customer:	D:	_		IVIO	
Approvals:	Process   QC:	Plan:	Date:	Tooling: SPC (Y/N):		ate:	Ru	n Start Stop	*NR1* *NR2*	
Sequence ID/ Work Center II	D	Operation Description	VA.44	Set Up/ Run Hours	Tool ID	Tool # Plan Code	Accept Qty	,0	Reject Insp. Number Stamp	
*160 *160*		QC21- Final Inspection -	Work Order Release	0.00			#	/km	13/09/27	

Quality Control

NB092

NCR: Y	·												
											QA Closed:	Date	:
Work Orde	or.					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Part No						Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing Work Order Update Large Fab Composite		<b>⊣</b>	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other			
Root	Ţ				Descri	ption of work order update		Initial	Act	tion	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved							AUI	LT CATE	GORY				
Landi	ng G	ear				General							
Bending Centre Not Concentric to O/S BOM/Rout Cracks Broken/Da Burrs Cuffs Contaminat Heat Treat Inspection Strip in Tube Ripples in Bend Bend BOM/Rout Broken/Da Burrs Contaminat Countersin		BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Grain Hardware Inspection Incomplete Instructions Incomplete/Unclear Maintenance Mislabeled Misread Offset		Unclear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other				
	1 1	Torque W	aves in E	xtrusio	n l	Drawing	1	Out of C	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish Folio August-08-13 8:57:30 AM

Work Order ID:

105516

Parent Item:

D2012-107

Parent Item Name:

Clevis

Start Date: 8/06/13

Required Date: 8/08/13

**Start Qty: 20.00** 

Required Qty: 20.00

Comments:

IPP: D 01.11.08 Re-format, Drawing to Rev. CSM IPP Rev. F. Now on Wateriet 06-06-13 ILM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>M304S16GA</b> 304/316 Sheet .063	1	Purchased	No			110	sf	345.5802	0.016	1.336842 O.S		JM	3-09-2
				<b>Location</b>		Loc Oty	Lo	c Code					
				MAT020		345.5801686							
				1222	245	0.1713688			-				
				123	136	140.8							
				124	428	23.61				<del></del>			
				125:	599	5.410631			<del></del>				
				M12	26159	175.588169							
				120	6915				190	0115			

										DQA:	Date:	
NCR:	res / Nö				WORK ORDER NON-	COI	NFORM	MANCE / UP	DATE			
					T		T			QA Closed:	Date:	<del></del>
Work Orde	er:	a.			DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
Part No.					1 — 1		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing		Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other	
NCK I	NO			•	Work Order Update	te Large Fab Composite Supplier						انا ا
Root Cause	Date	Step	Qty	1 ,	ption of work order update	1	Initial nief Eng		tion ription	Sign & Date	Verification	QC Inspector
Doc/Data	Date	- Зер	Qty	<u> </u>	or Non-comormance	-	ilei Liig	Desc	прион	Date	Vernication	QC IIISPECTOI
Equip/Tooling								-				
Operator												
Material					•					i		
Setup		:										
Other								, .				
Process		1						•				
Supplier				7								
Training												
Unapproved								•				
	<u> </u>	<u> </u>	1	<u> </u>	F	AUI	LT CATE	GORY				
Landi	ng Gear				General		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				
	Bending				Bend	Г	Grain			Ovalized		Pressure/Forced
	Centre I	Not Conce	ntric to	o/s	BOM/Route		Hardwa	re .		Over/Under	tolerance	Temperature/Cure
	Cracks	•			Broken/Damaged		Inspecti	on Incomplete		Part Incorred	ct	Weld
	Crushed	/Crimped			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs Contamination				Maintenance				Part Moved		•	
,	Heat Treat Countersink				Mislabeled			Positioned Wrong		_		
٠					Cut Too Short					Power Loss/	Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	1055/6
Description: Clevis	Part Number:	D2012-107
Inspection Dwg: D2012 Rev: C		Page 1 of 1

mapection Dwg	1. DZU1Z KE	V. U				Г	ige i oi i				
FIRST ARTICLE INSPECTION CHECKLIST											
	Ĺ	X First A	rticle [	Prot	otype						
Drawing		Actual			Method of						
Dimension	Tolerance	Dimension	Accept	Reject	Inspection		mments				
0.380	+/-0.010	0.384	_		V	JEmo	1				
1.325	+/-0.010	1.327			V		, , , , ,				
2.649	+/-0.010	2.647			V						
0.380	+/-0.010	0.383			V						
0.750	+/-0.010	0.755"	_		V						
R0.354	+/-0.010	0354"			RG		, 175.49kb, 1 b.				
Ø0.257	+0.006/-0.001	0.328,,			V						
0.063	+/-0.010	0.658"			V						
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			<u>.</u>								
			DAS								
Measured by:	JM	Audited by	y: 27 9-89		Prototype	Approval:	N/A				
Date:	13-09-25	Date		-26		Date:	N/A				
Rev Date	Change					Revised by	Approv <i>e</i> d				
	+					· · · · · · · · · · · · · · · · · ·	1, PP. 0 1/4 d				

Rev	Date	Change	Revised by.	Approvød
Α	07.02.02	New Issue	KJ/JLM A	- Cill
			10	7~1

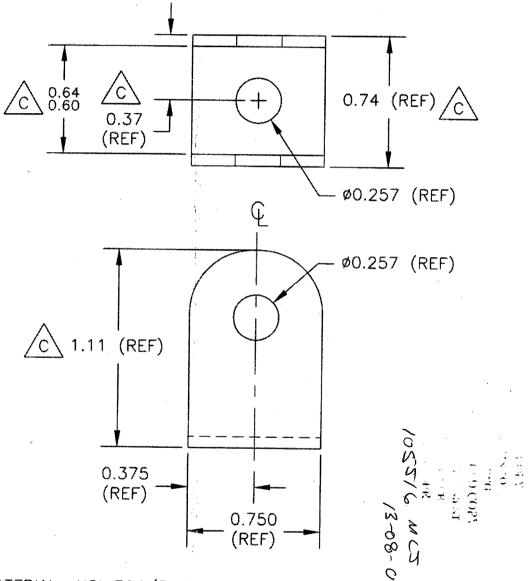




	BW	ORAWN BY	HAWI		
CHEC	<b>SD</b>	APPROVED	1		REV. C
	<b>7</b> /0	<u>l</u> ft			SHEET 1 OF 2
			TITLE		SCALE
99.1	2.20		CLEVIS		2:1
Α		94.10.27	NEW ISSUE		
	CHEC C DATE 99.	99.12.20	BW RF CHECKED APPROVED DATE 99.12.20	BW RF DART HAW!  CHECKED APPROVED DRAWING NO. D2012-107  DATE TITLE  99.12.20 CLEVIS	BW RF DARI AEROSPACE HAWKESBURY, ONTARIO, CANA CHECKED APPROVED DRAWING NO. D2012-107  DATE TITLE  99.12.20 CLEVIS

RELEASED

99.12.20		CLEVIS	2:1
A	94.10.27	NEW ISSUE	
В	99.04.30	ADD FLAT PATTERN	····
С	99.12.20	0.74 WAS 0.680	



MATERIAL: AISI 304/316 SS 0.063 THICK

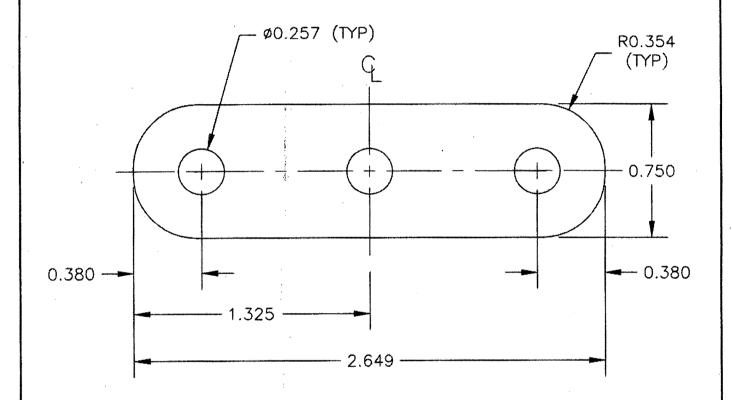
USE 0.032 BEND RADIUS

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES



DESIGN BW	ORAWN BY		OSPACE LTD ontario, canada
CHECKED.	APPROVED H	DRAWING NO. D2012-107	REV. C SHEET 2 OF 2
DATE.		TITLE	SCALE
99.12.20		CLEVIS	2:1





D2012-107 FLAT PATTERN

MATERIAL: AISI 304/316 SS 0.063 THICK TOLERANCES ARE DART QSI 018 UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES